- 1. (Cancelled)
- 2. (Currently Amended) A substituted amine according to claim 148

where R<sub>1</sub> is:

where  $R_N$  is:

 $R_{N-1}\mbox{-}X_{N^-}$  where  $X_N$  is selected from the group consisting of:

-CO-, and

-SO<sub>2</sub>-,

where  $R_{N-1}$  is  $-R_{N-arvl}$ ;

where R<sub>A</sub> is:

 $-C_1-C_8$  alkyl,

-(CH<sub>2</sub>)<sub>0-3</sub>-(C<sub>3</sub>-C<sub>7</sub>) cycloalkyl,

 $-(CR_{A-x}R_{A-y})_{0-4}-R_{A-aryl}$ ,

-cyclopentyl or -cyclohexyl ring fused to  $R_{\text{A-aryl}}$ ,

or

-C=OR $_7$ , where R $_7$  is

C1 - C6 alkyl,
phenyl,
thioalkoxyalkyl,
(aryl)alkyl, phenylalkyl,
cycloalkyl,
cycloalkylalkyl,
hydroxyalkyl,
alkoxyalkyl,
aryloxyalkyl, phenyloxyalkyl
haloalkyl,

where X is -N or -O, with the proviso that when X is O,  $R_{B}$  is absent; and when X is N,  $\,$ 

carboxyalkyl,

R<sub>B</sub> is:

3. (Currently Amended) A substituted amine according to claim 2

where  $R_1$  is:

 $\frac{-(CH_2)-(R_{1-aryl})}{(CH_2)-(R_{1-aryl})}$ , benzyl, wherein the phenyl portion is optionally substituted with 1 or 2 groups that are F, Cl,  $C_1$ - $C_4$  alkoxy,  $CF_3$ ,  $C_1$ - $C_4$  alkyl optionally substituted with one

-3-

substituent selected from the group consisting of  $C_1$ - $C_3$  alkyl,

-F, -Cl, -Br, -OH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_3$  alkoxy, and \_NR $_{1-a}$ R $_{1-b}$  where R $_{1-a}$ a and R $_{1-b}$  -H or  $C_1$ - $C_4$  alkyl,

-CO-,

where  $R_{N-1}$  is  $-R_{N-aryl7}$  phenyl, substituted with one, two or three of the following substituents which can be the same or different and are  $C_1$ - $C_4$  alkyl, optionally substituted with one or two substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_3$  alkoxy, and -NR $_1$ - $_a$ R $_1$ - $_b$ , -OH, -NO $_2$ , -F, -Cl, -Br, or -I, -CO-OH, -C $\equiv$ N, -(CH $_2$ ) $_{0-4}$ -CO-NR $_1$ - $_2$ R $_1$ - $_3$ , -(CH $_2$ ) $_{0-4}$ -SO $_2$ -NR $_1$ - $_3$ R $_1$ - $_4$ -SO $_2$ -(C $_1$ - $_4$ -C $_4$ -Alkyl), -(CH $_2$ ) $_{0-4}$ -SO $_2$ -(C $_1$ -C $_4$ -Alkyl), -(CH $_2$ ) $_{0-4}$ -SO $_2$ -(C $_3$ -C $_7$ -Cycloalkyl), -(CH $_2$ ) $_{0-4}$ -O-(C $_1$ -C $_4$ -Alkyl) optionally substituted with one, two, three, four, or five -F), C $_3$ -C $_7$ -Cycloalkyl, or -(CH $_2$ ) $_{0-4}$ -C $_3$ -C $_7$ -Cycloalkyl, where R $_1$ - $_2$ -And R $_2$ - $_3$ -Are the same or different and are selected

from the group consisting of H, and -C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with one substituent selected from -OH, and -NH<sub>2</sub>, -C<sub>1</sub>-C<sub>6</sub> alkyl

optionally substituted with one to three -F, -Cl, -Br, or -I, -C<sub>3</sub>-C<sub>7</sub> cycloalkyl, -(C<sub>1</sub>-C<sub>2</sub> alkyl)-(C<sub>3</sub>-C<sub>7</sub> cycloalkyl), and -(C<sub>1</sub>-C<sub>4</sub> alkyl)-O-(C<sub>1</sub>-C<sub>3</sub> alkyl);

## where RA is:

 $-C_1-C_8$  alkyl,

 $-(CH_2)_{0-3}-(C_3-C_7)$  cycloalkyl,

-  $(CR_{A-x}R_{A-y})_{0-4}-R_{A-ary1}$ 

-cyclopentyl or -cyclohexyl ring fused to  $R_{\text{A-aryl}}$ ,

-cyclopentyl or -cyclohexyl ring fused to  $R_{A-aryl}$ ,

-C=OR $_7$ , where R $_7$  is

 $C_i$  -  $C_6$  alkyl,

<del>(aryl)alkyl, phenylalkyl,</del>

cycloalkyl,

cycloalkylalkyl,

hydroxyalkyl,

alkoxyalkyl, or

haloalkyl,

where X is -N or -O, with the proviso that when X is O,  $R_{\mbox{\scriptsize B}}$  is absent;

and when X is N, and

R<sub>B</sub> is:

 $-C_1-C_8$ -alkyl, H or  $-C_1-C_6$  alkyl.

 $-(CH_2)_{\theta\rightarrow}-(C_3-C_7)$  cycloalkyl,

- (CR<sub>B x</sub>R<sub>B y</sub>)<sub>0-4</sub> R<sub>B aryl</sub>

4. (Currently Amended) A substituted amine according to claim 3, where  $R_A$  is:  $-(CR_{A-x}R_{A-y})_{0-4}-R_{A-aryl}$ , -cyclopentyl or -cyclohexyl ring fused to  $R_{A-aryl}$ , or -C=OR<sub>7</sub>, where

R<sub>A-aryl</sub> is phenyl, 1-naphthyl, or 2-naphthyl, substituted with one, two or three of the following substituents which can be the same or different and are  $C_1$ - $C_4$  alkyl, optionally substituted with one or two substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C=N, -CF<sub>3</sub>,  $C_1$ - $C_3$  alkoxy, and -NR<sub>1-a</sub>R<sub>1-b</sub>, -OH, -NO<sub>2</sub>, -F, -Cl, -Br, or -I, -CO-OH, -C=N, -(CH<sub>2</sub>)<sub>0-4</sub>-CO-NR<sub>N-2</sub>R<sub>N-3</sub>, -(CH<sub>2</sub>)<sub>0-4</sub>-SO<sub>2</sub>-NR<sub>N-2</sub>R<sub>N-3</sub>, -(CH<sub>2</sub>)<sub>0-4</sub>-SO<sub>2</sub>-( $C_1$ - $C_6$  alkyl), -(CH<sub>2</sub>)<sub>0-4</sub>-SO<sub>2</sub>-( $C_1$ - $C_6$  alkyl), -(CH<sub>2</sub>)<sub>0-4</sub>-O-( $C_1$ - $C_6$  alkyl optionally substituted with one, two, three, four, or five -F),  $C_3$ - $C_7$  cycloalkyl, or -(CH<sub>2</sub>)<sub>0-4</sub>- $C_3$ - $C_7$  cycloalkyl, where R<sub>N-2</sub> and R<sub>N-3</sub> are the same or different and are selected

from the group consisting of H, and  $-C_1-C_6$  alkyl optionally substituted with one substituent selected from -OH, and -NH<sub>2</sub>, -C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with one to three -F, -Cl, -Br, or -I, -C<sub>3</sub>-C<sub>7</sub> cycloalkyl, -(C<sub>1</sub>-C<sub>2</sub> alkyl)-(C<sub>3</sub>-C<sub>7</sub> cycloalkyl), and -(C<sub>1</sub>-C<sub>4</sub> alkyl)-O-(C<sub>1</sub>-C<sub>3</sub> alkyl);

 $R_7$  is  $C_1$  -  $C_6$  alkyl, cycloalkyl, cycloalkylalkyl, alkoxyalkyl, or haloalkyl,

 $R_{A-x}$  and  $R_{A-y}$  are -H,  $C_1$ - $C_4$  alkyl optionally substituted with one or two -OH,  $C_1$ - $C_4$  alkoxy optionally substituted with one, two, or three -F, or phenyl;

where  $R_B$  is H or  $C_1$ - $C_4$  alkyl.

where Ra is:

 $\frac{-(CR_{B-x}R_{B-y})_{0-4}-R_{B-aryl}, or}{cyclopentyl or cyclohexyl-ring fused to <math>R_{B-aryl}$ .

 $-(CH_2)-(R_{1-ary1})$  where  $R_{1-ary1}-is$  phenyl.

- 6. (Currently Amended) A substituted amine according to claim  $\frac{5}{148}$  where  $R_1$  is benzyl substituted with 2 fluorines.
- $\frac{-(CH_2)-(R_{1-aryl})}{-F}$  where  $R_{1-aryl}$  is phenyl substituted with two
- 7. (Currently Amended) A substituted amine according to claim 6 where the F substitution  $R_1$  is 3,5-difluorobenzyl.
  - 8. (Cancelled)

# 9. (Cancelled)

Claim 5 148 where  $R_N$  is  $R_{N-1}$   $X_N$  where  $X_N$  is CO, where  $R_{N-1}$  is  $R_{N-1}$  where  $R_N$  is phenyl CO, where  $R_N$  is  $R_{N-1}$  where  $R_N$  is phenyl CO, where  $R_N$  is  $R_N$  substituted with one  $CO-NR_{N-2}R_{N-3}$  where the substitution on phenyl is 1,3.

(Currently Amended) A substituted amine according to claim 10 where  $R_{N-2}$  and  $R_{N-3}$  are independently H or  $C_1$ - $C_6$  alkyl.

(Currently Amended) A substituted amine according to claim  $\frac{5}{148}$  where  $R_N$  is  $\frac{-C(0)}{12}$ , wherein the

 $R_{N-1}-X_N$  where  $X_N$  is CO , where  $R_{N-1}$  is  $R_{N-ary1}$  where  $R_{N-ary1}$  is phenyl is substituted with one  $C_1$ -alkyl methyl group and with one -CO-NR<sub>N-2</sub>R<sub>N-3</sub> where the substitution on the phenyl is 1,3,5.

(Currently Amended) A substituted amine according to claim 12 where  $R_{N-2}$  and  $R_{N-3}$  are independently H or  $C_1$ - $C_6$  alkyl.

### 14-15. (Cancelled)

16. (Currently Amended) A substituted amine according to either claim 10 or 12 148 where  $R_A$  is:

 $-(CR_{A-x}R_{A-y})_{0-4}-R_{A-aryl} \text{ where } R_{A-aryl} \text{ is phenyl, } \underline{\text{which is}}$  optionally substituted with one or two substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_3$  alkoxy, and -NR $_{1-a}R_{1-b}$ ; and wherein the phenyl is optionally fused to a cyclopentyl or cyclohexyl ring; eyclopentyl or -cyclohexyl ring fused to a  $R_{A-aryl}$ ; and  $R_{A-x}$  and  $R_{A-y}$ , if present, are both H.

(Currently Amended) A substituted amine according to claim 16 where  $R_A$  is phenyl.  $\frac{(CR_{A \ *}R_{A \ y})_{0 \ 4} - R_{A \ aryl}}{(CR_{A \ *}R_{A \ y})_{0 \ 4} - R_{A \ aryl}}$  where  $R_A$  is phenyl.

(Currently Amended) A substituted amine according to elaim 17 claim 16 where phenyl is mono-substituted in at the 3-position or disubstituted at the 3,5-positions.

#### 19-20. (Cancelled)

12. (Original) A substituted amine according to claim 16 where  $R_A$  is: -cyclohexyl ring fused to a phenyl ring.

(Currently Amended) A substituted amine according to  $\frac{1}{2}$ . (Currently Amended) A substituted amine according to claim 148 claim 17, where  $R_B$  is H or  $C_1$ - $C_4$  alkyl.  $R_B$  is:

23. (Currently Amended) A substituted amine according to claim 22 where  $R_B$  is  $\underline{H}$ . is:  $(CR_{B-x}R_{B-y})_{0-4}$   $R_{B-aryl}$  where  $R_{B-aryl}$  is phenyl,

(Currently Amended) A substituted amine according to claim  $\frac{22}{100}$  claim  $\frac{22}{100}$  where  $\frac{R_B}{100}$  is methyl. phenyl is substituted in the 3 position or 3,5 positions.

25-26. (Cancelled)

37. (Cancelled)

28. (Currently Amended) A substituted amine according to claim 148, where  $\underline{X}$  is oxygen and  $R_B$  is absent.

29. (Previously Presented) A substituted amine according to claim 148 chosen from the group consisting of:

N-[1-(3,5-Difluoro-benzyl)-2-hydroxy-3-(N'-methyl-N'-phenyl-hydrazino)-propyl]-5-methyl-N',N'-dipropyl-isophthalamide,

 $N-\{1-(3,5-Difluoro-benzyl)-2-hydroxy-3-[N'-methyl-N'-(4-methyl-pentanoyl)-hydrazino]-propyl\}-5-methyl-N',N'-dipropyl-isophthalamide, and$ 

N-[1-(3,5-Difluoro-benzyl)-2-hydroxy-3-phenoxyamino-propyl]-5-methyl-N',N'-dipropyl-isophthalamide.

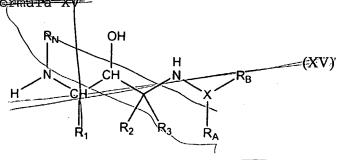
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30. (Previously Presented) A substituted amine according to claim 148 where the pharmaceutically acceptable salt is selected from the group consisting of salts of the following acids acetic, aspartic, benzenesulfonic, benzoic, bicarbonic, bisulfuric, bitartaric, butyric, calcium edetate, camsylic, carbonic, chlorobenzoic, citric, edetic, edisylic, estolic, esyl, esylic, formic, fumaric, gluceptic, gluconic, glutamic, glycollylarsanilic, hexamic, hexylresorcinoic, hydrabamic, hydrobromic, hydrochloric, hydroiodic, hydroxynaphthoic, isethionic, lactic, lactobionic, maleic, malic, malonic, mandelic, methanesulfonic, methylnitric, methylsulfuric, mucic, muconic, napsylic, nitric, oxalic, p-nitromethanesulfonic, pamoic, pantothenic, phosphoric, monohydrogen phosphoric, dihydrogen phosphoric, phthalic, polygalactouronic, propionic, salicylic, stearic, succinic, sulfamic, sulfanilic, sulfonic, sulfuric, tannic, tartaric, teoclic and toluenesulfonic.

### 31-143. (Cancelled)

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144. (Previously Presented) A composition comprising a compound of formula XV



where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_N$ ,  $R_N$ ,  $R_N$ ,  $R_N$ , and X are as defined in claim 148; and an inert diluent or edible carrier.

145. (Original) The composition of claim 144, where said carrier is an oil.

146. (Previously Presented) A composition comprising a compound of formula XV

where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_N$ ,  $R_A$ ,  $R_B$ , and X are as defined in claim 148; and an binder, excipient, disintegrating agent, lubricant, or gildant.

25

147. (Previously Presented) A composition comprising a compound of formula XV

where  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_N$ ,  $R_A$ ,  $R_B$ , and X are as defined in claim 148, disposed in a cream, ointment, or patch.

148. (Currently Amended) A substituted amine of formula (XV)

or a salt thereof, where  $R_1$  is  $-(CH_2)_{n1}-(R_{1-aryl})$  where  $n_1$  is zero or one and where  $R_{1-aryl}$  is phenyl, optionally substituted with one, two, or three, or four of the following substituents on the aryl ring:

(A)  $C_1$ - $C_6$  alkyl optionally substituted with one, two or three substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_3$  alkoxy, and -NR $_{1-a}$ R $_{1-b}$  where R $_{1-a}$  and R $_{1-b}$  -H or  $C_1$ - $C_6$  alkyl,

(B)- $C_2$ - $C_6$ -alkenyl with one or two double-bonds, optionally substituted with one, two or three substituents selected from the group consisting of F, Cl, OH, SH, C=N,

-CF<sub>3</sub>,  $C_1$ - $C_3$ -alkoxy, and -NR<sub>1-a</sub>R<sub>1-b</sub>-where R<sub>1-a</sub>-and R<sub>1-b</sub> are H or  $C_1$ - $C_6$ -alkyl,

(C)  $C_2$   $C_6$  alkynyl with one or two triple bonds, optionally substituted with one, two or three substituents selected from the group consisting of F,  $C_1$ ,  $C_1$ ,  $C_2$  alkoxy, and  $C_1$   $C_2$  where  $C_1$  and  $C_2$  alkoxy, and  $C_3$  where  $C_4$  and  $C_4$  and  $C_4$  are  $C_4$  alkyl,

- (D) -F, Cl, -Br or -I,
- (F)  $-C_1-C_6$  alkoxy optionally substituted with one, two, or three of: -F,
- (G)  $-N\ensuremath{R_{N-2}}\ensuremath{R_{N-3}}$  where  $\ensuremath{R_{N-2}}$  and  $\ensuremath{R_{N-3}}$  are as defined below,
  - (H) -OH,
  - (I) -C≡N,

(K)  $-CO-(C_1-C_4 \text{ alkyl})$ ,

(L)  $SO_2$   $NR_{1-a}R_{1-b}$  where  $R_{1-a}$  and  $R_{1-b}$  are as defined above,

(M) CO NR<sub>1 a</sub>R<sub>1 b</sub> where R<sub>1 a</sub> and R<sub>1 b</sub> are as defined above, or

 $\frac{\text{(N)} - \text{SO}_2 - (C_1 - C_4 - \text{alkyl})}{\text{(N)}}$ 

where R2 is:

(1)-H, or  $C_1$ - $C_3$  alkyl;

(II)— $C_1$ — $C_3$ —alkyl, optionally substituted with one, two or three substituents selected from the group consisting of  $C_1$ — $C_3$  alkyl, F, Cl, Br, I, OH, SH, C=N, CF<sub>3</sub>,  $C_1$ — $C_3$  alkoxy, and NR<sub>1-a</sub>R<sub>1-b</sub>—where R<sub>1-a</sub>—and R<sub>1-b</sub> are as defined above,

where R<sub>3</sub> is:

[(I)]-H, or  $C_1$ - $C_3$  alkyl;

 $(\overline{II}) \ C_1 - C_3 - alkyl, \ optionally \ substituted \ with \ one, \ two or three substituents selected from the group consisting of <math>C_1 - C_3$  alkyl,  $F_1 - C_1$ ,  $-B_1 - C_3 - C_4$ ,  $-C_3 - C_4 - C_3$ ,  $-C_1 - C_3 - C_4 - C_3 - C_4$ , where  $R_{1-a}$  and  $R_{1-b}$  are as defined above,

where  $R_N$  is  $R_{N-1}\text{-}X_{N^-}$  where  $X_N$  is selected from the group consisting of:

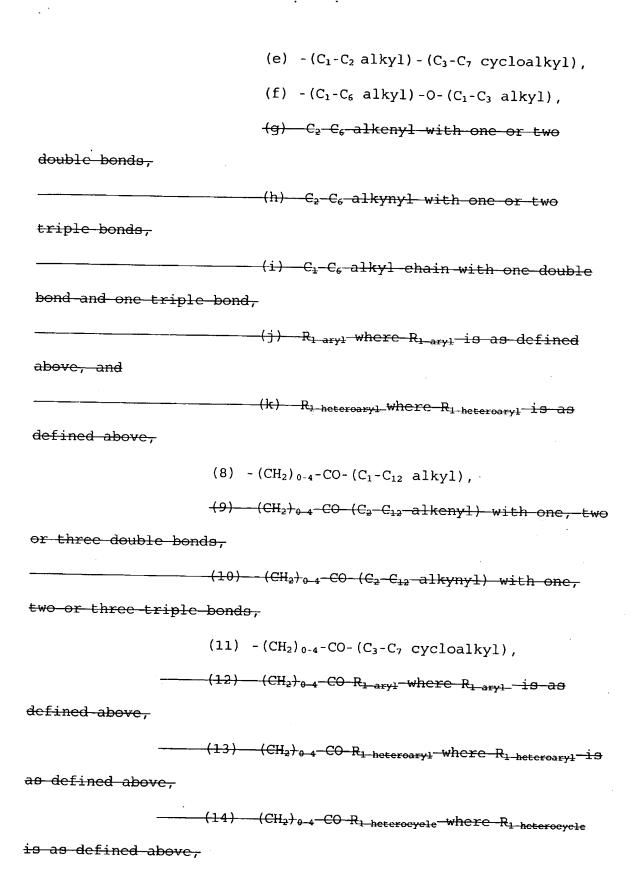
- (A) -CO-,
- (B)  $-SO_2-$ ,
- (C) -(CR'R") $_{1\text{-}6}$  where R' and R" are the same or different and are -H or  $C_1\text{-}C_4$  alkyl,
  - (E) a single bond;

where  $R_{N-1}$  is  $R_{N-aryl}$  where  $R_{N-aryl}$  is phenyl, 1-naphthyl, or 2-naphthyl, tetralinyl, indanyl, dihydronaphthyl-or-6,7,8,9-tetrahydro-5H benzo[a]cycloheptenyl, or dihydronaphthyl each of

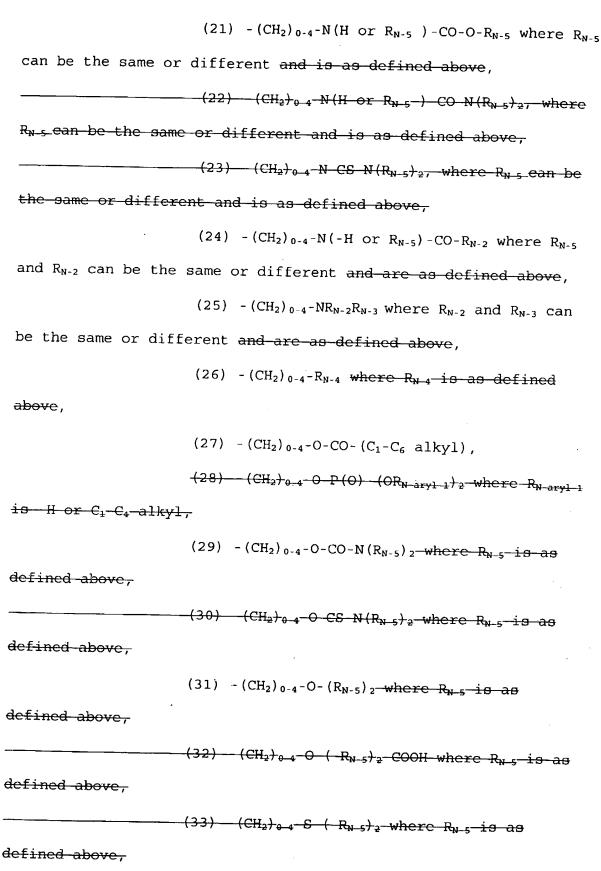
which is optionally substituted with one, two or three of the following substituents which can be the same or different and are:

(1)  $C_1$ - $C_6$  alkyl, optionally substituted with one, two or three substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_3$  alkoxy, and -NR $_{1-a}$ R $_{1-b}$  where R $_{1-a}$  and R $_{1-b}$  are as defined above,

- (2) OH,
- (3) NO<sub>2</sub>
- (4) -F, -Cl, -Br, or -I,
- (5) -CO-OH,
- (6) -C≡N,
- (7) -(CH<sub>2</sub>)<sub>0-4</sub>-CO-NR<sub>N-2</sub>R<sub>N-3</sub> where R<sub>N-2</sub> and R<sub>N-3</sub> are the same or different and are selected from the group consisting of:
  - (a) -H,
- $\mbox{(b) $-C_1$-$C_6$ alkyl optionally substituted}$  with one substitutent selected from the group consisting of:
  - (i) -OH, and
  - (ii)  $-NH_2$ ,
- (c)  $-C_1-C_6$  alkyl optionally substituted with one to three -F, -Cl, -Br, or -I,
  - (d) -C<sub>3</sub>-C<sub>7</sub> cycloalkyl,



(15) -(CH<sub>2</sub>)<sub>0-4</sub>-CO-R<sub>N-4</sub> where  $R_{\text{N-4}}$  is selected from the group consisting of morpholinyl, thiomorpholinyl, piperazinyl, piperidinyl, homomorpholinyl, homothiomorpholinyl, homothiomorpholinyl S-oxide, homothiomorpholinyl S,S-dioxide, pyrrolinyl and pyrrolidinyl where each group is optionally substituted with one, two, three, or four of  $C_1$ - $C_6$  alkyl, (16) -(CH2)0-4-CO-O-RN-5 where  $R_{N\text{-}5}$  is selected from the group consisting of: (a)  $C_1$ - $C_6$  alkyl, (b) -(CH<sub>2</sub>) $_{0\text{--}2}$ -(R $_{1\text{-aryl}}$ ) where R $_{1\text{-aryl}}$  is as defined above, (c) C2 C6-alkenyl containing one-or-two double bonds. (d) C2 C6 alkynyl containing one or two triple bonds, (e)  $C_3 \cdot C_7$  cycloalkyl, and (f) (CH<sub>2</sub>)<sub>0-2</sub> (R<sub>1-heteroary1</sub>) where R<sub>1-heteroary1</sub> is as defined above, (17)  $-(CH_2)_{0-4}$   $-SO_2$   $-NR_{N-2}R_{N-3}$  where  $-R_{N-2}$  and  $-R_{N-3}$ are as defined above,  $-(18) - (CH_2)_{0-4} - SO - (C_1 - C_0 - alkyl)$ , <del>- (19) - (CH<sub>2</sub>)<sub>0-4</sub>-SO<sub>2-</sub>(C<sub>1</sub>-C<sub>12</sub>-alkyl),</del> -(20)  $-(CH_2)_{0-4}$   $-SO_2$   $-(C_3$   $-C_7$ cycloalkyl),



 $\mbox{(34)} \ \ \mbox{-} (\mbox{CH}_2)_{\,0\text{--}4}\mbox{-O-} (\mbox{C}_1\mbox{-C}_6 \ \mbox{alkyl optionally}$  substituted with one, two, three, four, or five -F),

(35)  $C_3$ - $C_7$  cycloalkyl,

(36)  $-C_2$   $-C_6$  alkenyl with one or two double bonds optionally substituted with  $-C_1$   $-C_3$  alkyl,  $-F_4$   $-C_1$   $-F_4$   $-F_5$   $-F_6$   $-F_6$   $-F_6$   $-F_7$   $-F_8$  where  $-F_8$  and  $-F_8$  are as defined above,

bonds optionally substituted with  $C_1$   $C_3$  alkyl, F,  $C_1$ , Br, I, OH, SH, C=N,  $CF_3$ ,  $C_1$   $C_3$  alkoxy, or  $NR_{1-a}R_{1-b}$  where  $R_{1-a}$  and  $R_{1-b}$  are as defined above,

and  $R_{N-2}$ —can be the same or different and are as described above, or

(39)  $\sim (CH_2)_{0-4} - C_3 - C_7$  cycloalkyl,

where RA is:

(I)- $C_1$ - $C_{10}$  alkyl optionally substituted with one, two or three substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_6$  alkoxy, -O-phenyl, -NR $_{1-a}$ R $_{1-b}$  where R $_{1-a}$  and R $_{1-b}$  are as defined above, -OC=O NR $_{1-a}$ R $_{1-b}$  where R $_{1-a}$  and R $_{1-b}$  are as defined above, -S(=O) $_{0-2}$  R $_{1-a}$  where R $_{1-a}$  is as defined above, -NR $_{1-a}$ C=O NR $_{1-a}$ R $_{1-b}$  where R $_{1-a}$  and R $_{1-b}$  are as defined above, -C=O NR $_{1-a}$ R $_{1-b}$  where R $_{1-a}$  and R $_{1-b}$  are as

defined above, and  $-S(=0)_2$   $NR_{1-a}R_{1-b}$  where  $R_{1-a}$  and  $R_{1-b}$  are as defined above,

 $(H_1)$   $(CH_2)_{0-3}$   $(C_3-C_8)$  cycloalkyl where cycloalkyl can be optionally substituted with one, two or three substituents selected from the group consisting of  $C_1$   $C_3$  alkyl, F,  $C_1$ ,  $B_T$ , -I, OH, SH, C=N,  $CF_3$ ,  $C_1$   $C_6$  alkoxy, O phenyl, CO OH, OH,

(III) -  $(CR_{A-x}R_{A-y})_{0-4}-R_{A-aryl}$  where  $R_{A-x}$  and  $R_{A-y}$  are (A) -H,

- (B)  $C_1$ - $C_4$  alkyl optionally substituted with one or two -OH,
- (C)  $C_1\text{-}C_4$  alkoxy optionally substituted with one, two, or three of: -F,
  - (D)  $-(CH_2)_{0-4}-C_3-C_7$  cycloalkyl,
- (E)  $C_2\text{-}C_6$  alkenyl containing one or two double bonds,
- (F)  $C_2$ - $C_6$  alkynyl containing one or two triple bonds,
  - (G) phenyl,

and where  $R_{A-x}$  and  $R_{A-y}$  are taken together with the earbon to which they are attached to form a carbocycle of three, four, five, six, or seven carbon atoms, optionally where one carbon atom is replaced by a heteroatom selected from the group

consisting of 0 , S ,  $SO_2$  , and  $NR_{N-2}$  and  $R_{A~ary1}$  is the same as RN aryl+ (IV) -cyclopentyl, -cyclohexyl, or -cycloheptyl ring fused to  $R_{A-aryl}$ , where  $R_{A-aryl}$  is as defined above where one carbon of cyclopentyl, cyclohexyl, or -cycloheptyl is optionally replaced with NH,  $NR_{N-5}$ , O, or  $S(=0)_{0-2}$ , and where cyclopentyl, cyclohexyl, or -cycloheptyl can be optionally substituted with one or two  $-C_1-C_3$  alkyl, -F, -OH, -SH,  $-C \equiv N$ ,  $-CF_3$ ,  $C_1-C_6$  alkoxy, =0, or  $-NR_{1-a}R_{1-b}$  where  $R_{1-a}$  and  $R_{1-b}$  are as defined above, (V) CH (-CH<sub>2</sub>-OH) -CH (-OH) -phenyl NO<sub>2</sub>, (VI) -H, (VII) -C=OC(HR<sub>6</sub>)NHR<sub>7</sub>, where R<sub>6</sub> and R<sub>7</sub> are as defined below -C=OR<sub>7</sub>, where R<sub>7</sub> is as defined below, or -C-OOR, where R, is as defined below, or -SOOR, where R, is as defined below, wherein R6 is: <del>hydrogen</del>  $-C_1$   $-C_3$  alkyl,

-alkyl-substituted aryl,

- phenyl,

- eycloalkyl,

-thioalkoxyalkyl,

<del></del>
hydroxyalkyl,
——————————————————————————————————————
<del>aryloxyalkyl,</del>
haloalkyl,
<del></del>
alkoxycarbonylalkyl
aminoalkyl,
(N protected) aminoalkyl,
alkylaminoalkyl,
((N-protected)(alkyl)amino)alkyl
<del>guanidinoalkyl,</del>
lower alkenyl,
(heterocyclic)alkyl),
arylthioalkyl,
<del>arylsulfonyalkyl,</del>
- (heterocyclic)thioalkyl,
(heterocyclic)sulfonylalkyl,
(heterocyclic) oxyalkyl,
arylalkoxyalkyl,
arylthioalkoxyalkyl,
-arylalkylsulfonylalkyl,
(heterocyclic))alkoxyalkyl,

.

(heterocyclic)thioalkoxyalkyl,
——————————————————————————————————————
——————————————————————————————————————
cycloalkylthioalkyl,
cycloalkylsulfonylalkyl,
cycloalkylalkoxyalkyl,
cycloalkylthioalkoxyalkyl,
aminocarbonyl,
-alkylaminocarbonyl,
dialkylaminocarbonyl,
aroylalkyl,
(heterocyclic) carbonylalkyl,
——————————————————————————————————————
-aminocarbonylalkyl,
dialkylaminocarbonylalkyl,
aryloxyalkyl, or
alkylsulfonylalkyl,
thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, furanyl, thienyl,
tetrahydrofuranyl, tetrahydrothienyl and tetrahydro[2H]pyranyl
and wherein the heterocycle is unsubstituted or substituted with
one-to-three-substituents independently selected from hydroxy,
nalo, amino, alkylamino, dialkylamino, alkoxy, polyalkoxy, -24-

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haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, COOH,
-SO₃H, lower alkenyl or lower alkyl;
                     wherein R<sub>7</sub> is:
                          C_1 - C_6 alkyl,
                          phenyl,
                          thioalkoxyalkyl,
                          (aryl)alkyl,
                          cycloalkyl,
                          cycloalkylalkyl,
                          hydroxyalkyl,
                          alkoxyalkyl,
                          aryloxyalkyl,
                         haloalkyl,
                         carboxyalkyl,
                         alkoxycarbonylalkyl,
                         aminoalkyl,
                         (N-protected) aminocalkyl,
                         alkylaminoalkyl,
                         (N-protected) (alkyl) amino) alkyl,
                         dialkylaminoalkyl,
                         guanidinoalkyl,
                         lower alkenyl,
                        heterocyclic,
                         (heterocyclic)alkyl),
```

•	
	arylsulfonylalkyl,
	——————————————————————————————————————
	(hterocyclic)sulfonylalkyl
	-(heterocyclic)oxyalkyl
	——————————————————————————————————————
	arylthioalkoxyalkyl,
	arylalkylsulfonylalkyl
	(heterocyclic)alkoxyalkyl,
	(heterocyclic)thioalkoxyalkyl
	(heterocyclic)alkylsulfonylalkyl
	<del>cycloalkyloxyalkyl,</del>
	cyclolakylthioalkyl,
	<del>cycloalkylalkylsulfonylalkyl,</del>
	aminocarbonyl,
	alkylaminocarbonyl,
	dialkylaminocarbonyl,
	aroylalkyl,
	(heterocyclic) carbonylalkyl,
	——————————————————————————————————————
	aminocarbonylalkyl,
	-dialkylaminocarbonylalkyl,
	-26-

wherein heterocyclic is pyridyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, furanyl, thienyl, tetrahydrofuranyl, tetrahydrothienyl, and tetrahydro[2H]pyranyl and wherein the heterocycle is unsubstituted or substituted with one to three substituents independently selected from hydroxy, halo, amino, alkylamino, dialkylamino, alkoxy, polyalkoxy, haloalkyl, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, COOH, SO3H, lower alkenyl or lower alkyl;

where X is -N, or -O, with the proviso that when X is O,  $R_{\mbox{\scriptsize B}}$  is absent;

and when X is N,

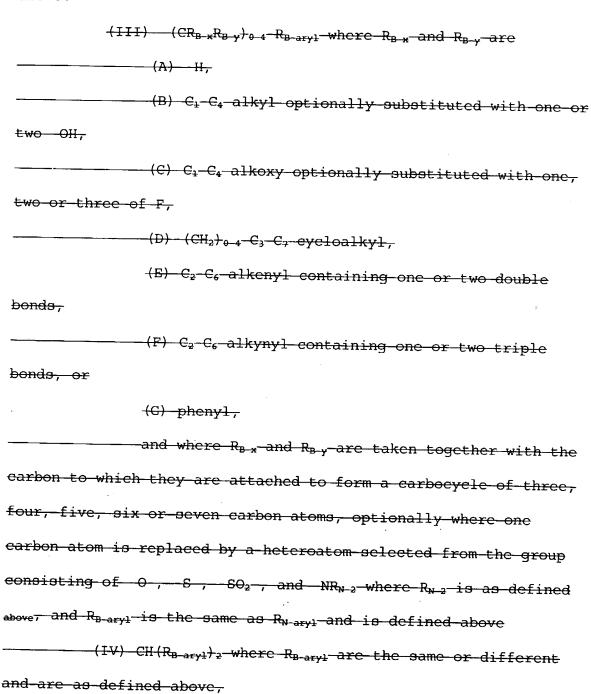
R<sub>B</sub> is:

[(I)]  $-C_1-C_{10}$  alkyl optionally substituted with one, two or three substituents selected from the group consisting of  $C_1-C_3$  alkyl, -F, -Cl, -Br, -I, -OH,

-SH, -C $\equiv$ N, CF<sub>3</sub>, C<sub>1</sub>-C<sub>6</sub> alkoxy, -O-phenyl, -NR<sub>1-a</sub>R<sub>1-b</sub> where R<sub>1-a</sub> and R<sub>1-b</sub> are as defined above, -OC=O NR<sub>1-a</sub>R<sub>1-b</sub> where R<sub>1-a</sub> and R<sub>1-b</sub> are as defined above, NR<sub>1-a</sub> where R<sub>1-a</sub> is as defined above, NR<sub>1-a</sub> accondingly where R<sub>1-a</sub> and R<sub>1-b</sub> are as defined above, -C=O NR<sub>1-a</sub>R<sub>1-b</sub> where R<sub>1-a</sub> and R<sub>1-b</sub> are as defined above, and S(=O)<sub>2</sub> NR<sub>1-a</sub>R<sub>1-b</sub> where R<sub>1-a</sub> and R<sub>1-b</sub> are as defined above,

(II)  $-(CH_2)_{0-3}-(C_3-C_8)$  cycloalkyl where cycloalkyl can be optionally substituted with one, two or three substituents

selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_6$  alkoxy, -O-phenyl, -CO-OH, -CO-O-( $C_1$ - $C_4$  alkyl), and NR $_{1-a}$ R $_{1-b}$ ; where R $_{1-a}$  and R $_{1-b}$  are as defined above.



(V) cyclopentyl, cyclohexyl, or cycloheptyl ring fused to R<sub>B aryl</sub> or R<sub>B heteroaryl</sub> or R<sub>B heterocycle</sub> where R<sub>B aryl</sub> or R<sub>B</sub> heteroaryl Or R<sub>B-heterocycle</sub> are as defined above where one carbon of eyclopentyl, cyclohexyl, or cycloheptyl is optionally replaced with NH,  $NR_{N-5}$ , 0, or  $S(=0)_{0-2}$ , and where cyclopentyl, cyclohexyl, or cycloheptyl can be optionally substituted with one or two  $-C_1-C_3$  alkyl, F, OH, SH, C=N,  $-CF_3$ ,  $-C_1-C_6$  alkoxy, -O, and  $NR_{1-a}R_{1-b}$  where  $R_{1-a}$  and  $R_{1-b}$  are as defined above,

<del>(VI)</del> or -H.

149. (New) A compound according to claim 17, wherein

 $R_N$  is of the formula

150. (New) A compound according to claim 149, wherein  $R_{N-2}$  and  $R_{N-3}$  are both  $C_3$  alkyl.

151. (New) A compound according to claim 13, wherein

 $R_{N}$  is of the formula

152. (New) A compound according to claim 151, wherein

 $R_{N\text{--}2}$  and  $R_{N\text{--}3}$  are both  $C_3$  alkyl.

New) A compound according to claim 28, wherein R<sub>1</sub> is benzyl, wherein the phenyl portion is optionally substituted with 1 or 2 groups that are F, Cl, C<sub>1</sub>-C<sub>4</sub> alkoxy, CF<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl optionally substituted with one substituent selected from the group consisting of C<sub>1</sub>-C<sub>3</sub> alkyl, -F, -Cl, -Br, -OH, -C=N, -CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub> alkoxy, and -NR<sub>1-a</sub>R<sub>1-b</sub> where R<sub>1-a</sub> and R<sub>1-b</sub> -H or C<sub>1</sub>-C<sub>4</sub> alkyl,

 $R_2$  is -H;

 $R_3$  is -H;

 $R_N$  is  $R_{N-1}-X_N$ — where  $X_N$  is -CO-, and  $R_{N-1}$  is phenyl substituted with one, two or three of the following substituents which can be the same or different and are  $C_1-C_4$  alkyl, -OH, -NO<sub>2</sub>, -F, -Cl, -Br, or -I, -CO-OH, -C $\equiv$ N, -(CH<sub>2</sub>) $_{0-4}$ -CO-NR<sub>N-2</sub>R<sub>N-3</sub>, where

 $R_{N-2}$  and  $R_{N-3}$  are the same or different and are selected from the group consisting of H, and  $-C_1-C_6$  alkyl optionally substituted with one substituent selected from -OH, and -NH<sub>2</sub>,  $-C_1-C_6$  alkyl optionally substituted with one to three -F, -Cl, -Br, or -I,  $-C_3-C_7$  cycloalkyl,  $-(C_1-C_2$  alkyl) -  $(C_3-C_7$  cycloalkyl), and  $-(C_1-C_4$  alkyl)-O- $(C_1-C_3$  alkyl).

 $R_{A-ary1}$  is phenyl, 1-naphthyl, or 2-naphthyl, substituted with one, two or three of the following substituents which can be the same or different and are  $C_1$ - $C_4$  alkyl optionally substituted with one or two substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_3$  alkoxy, and -NR $_1$ - $_4$ R $_1$ - $_5$ , -OH, -NO $_2$ , -F, -Cl, -Br, or -I, -CO-OH, -C $\equiv$ N, -(CH $_2$ ) $_{0-4}$ -CO-NR $_{N-2}$ R $_{N-3}$ , -(CH $_2$ ) $_{0-4}$ -SO $_2$ -NR $_{N-2}$ R $_{N-3}$ , -(CH $_2$ ) $_{0-4}$ -SO $_2$ -( $C_1$ - $C_6$  alkyl), -(CH $_2$ ) $_{0-4}$ -SO $_2$ -( $C_3$ - $C_7$  cycloalkyl), -(CH $_2$ ) $_{0-4}$ -O-( $C_1$ - $C_6$  alkyl optionally substituted with one, two, three, four, or five -F),  $C_3$ - $C_7$  cycloalkyl, or -(CH $_2$ ) $_{0-4}$ -  $C_3$ - $C_7$  cycloalkyl, where  $R_{N-2}$  and  $R_{N-3}$  are the same or different and are selected

from the group consisting of H, and  $\text{-}C_1\text{-}C_6$  alkyl;  $\text{R}_7$  is  $\text{C}_1$  -  $\text{C}_6$  alkyl;

 $R_{\text{A-x}}$  and  $R_{\text{A-y}}$  are -H,  $C_1\text{-}C_4$  alkyl, or phenyl.

3\
155. (New) A compound according to claim 154, wherein

R1 is benzyl, wherein the phenyl portion is substituted with 1 or

2 groups that are F, Cl, C1-C4 alkoxy, CF3, or C1-C4 alkyl;

RA-aryl is phenyl substituted with one or two of the following

substituents C1-C4 alkyl, optionally substituted with

one or two substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, -OH, -NO<sub>2</sub>, -F, -Cl, -Br, or -I, -CO-OH, -C $\equiv$ N, -(CH<sub>2</sub>)<sub>0-4</sub>-CO-NR<sub>N-2</sub>R<sub>N-3</sub>, and -(CH<sub>2</sub>)<sub>0-4</sub>-O-( $C_1$ - $C_6$  alkyl optionally substituted with one, two, three, four, or five -F, where

 $R_{N\text{--}2}$  and  $R_{N\text{--}3}$  are the same or different and are selected from the group consisting of H, and  $-C_1-C_6$  alkyl.

156. (New) A substituted amine according to claim 155 where  $R_N$  is -C(0)-phenyl, wherein the phenyl is substituted with one  $-CO-NR_{N-2}R_{N-3}$ .

157. (New) A substituted amine according to claim 156 where  $R_{N-2}$  and  $R_{N-3}$  are independently H or  $C_1$ - $C_6$  alkyl.

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159. (New) A substituted amine according to claim 155 where  $R_N$  is -C(0)-phenyl, wherein the phenyl is substituted with one methyl group and with one  $-CO-NR_{N-2}R_{N-3}$ .

36 (New) A substituted amine according to claim 159 where

 $R_{N-2}$  and  $R_{N-3}$  are independently H or  $C_1$ - $C_6$  alkyl.

 $\mathcal{H}$  [New) A compound according to claim 160, wherein  $R_{N-2}$  and  $R_{N-3}$  are both  $C_3$  alkyl.

3, 1.62. (New) A compound according to claim 4, wherein  $R_7$  is  $C_1$  -  $C_6$  alkyl;

 $R_1$  is benzyl, wherein the phenyl portion is substituted with 1 or 2 groups that are F, Cl,  $C_1\text{-}C_4$  alkoxy,  $CF_3$ , or  $C_1\text{-}C_4$  alkyl; and

 $R_N$  is  $R_{N-1}-X_N-$  where  $X_N$  is -CO-, and  $R_{N-1}$  is phenyl substituted with one, two or three of the following substituents which can be the same or different and are  $C_1-C_4$  alkyl, -OH, -NO<sub>2</sub>, -F, -Cl, -Br, or -I, -CO-OH, -C $\equiv$ N, -(CH<sub>2</sub>)<sub>0-4</sub>-CO-NR<sub>N-2</sub>R<sub>N-3</sub>, where

 $R_{N-2}$  and  $R_{N-3}$  are the same or different and are selected from the group consisting of H, and  $-C_1-C_6$  alkyl optionally substituted with one substituent selected from -OH, and -NH<sub>2</sub>,  $-C_1-C_6$  alkyl optionally substituted with one to three -F, -Cl, -Br, or -I,  $-C_3-C_7$  cycloalkyl,  $-(C_1-C_2$  alkyl)  $-(C_3-C_7$  cycloalkyl), and  $-(C_1-C_4$  alkyl)  $-(C_1-C_3$  alkyl).

163. (New) A compound according to claim 162, wherein

 $R_N$  is -C(O)-phenyl, wherein the phenyl is substituted with one  $-CO-NR_{N-2}R_{N-3}. \label{eq:constraint}$ 

164. (New) A substituted amine according to claim 163 where  $R_{N-2}$  and  $R_{N-3}$  are independently H or  $C_1$ - $C_6$  alkyl.

165. (New) A compound according to claim 164, wherein  $R_{N\text{-}2}$  and  $R_{N\text{-}3}$  are both  $C_3$  alkyl.

166. (New) A substituted amine according to claim 162 where  $R_N$  is -C(O)-phenyl, wherein the phenyl is substituted with one methyl group and with one -CO-NR<sub>N-2</sub>R<sub>N-3</sub>.

 $\label{eq:4.4} 4^{3}$  167. (New) A substituted amine according to claim 166 where  $$R_{N-2}$$  and  $$R_{N-3}$$  are independently H or  $C_1$ -C6 alkyl.

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1-68. (New) A compound according to claim 167, wherein  $R_{N\text{-}2}$  and  $R_{N\text{-}3}$  are both  $C_3$  alkyl.